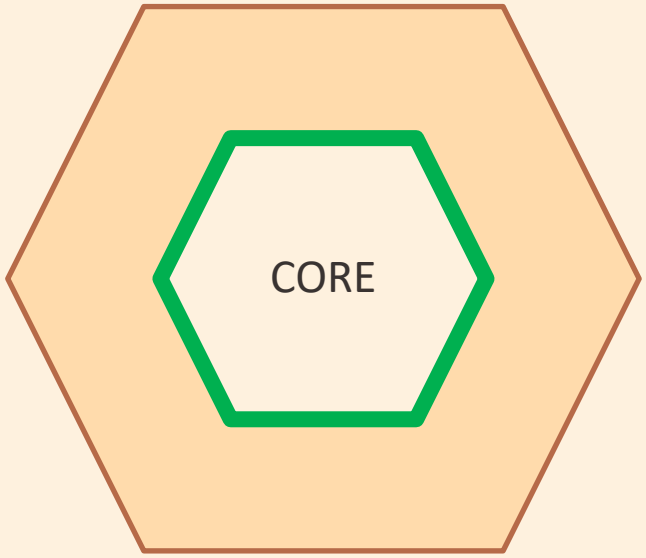
Ports & Adapters

The Goal

What is it and what does it look like?

Ports & Adapters

Hexagonal Architecture



The number of sides in the hexagonal is of no importance.
but that ***the core logic is at the center***.

Ports & Adapters

Hexagonal Architecture

Alistair Cockburn

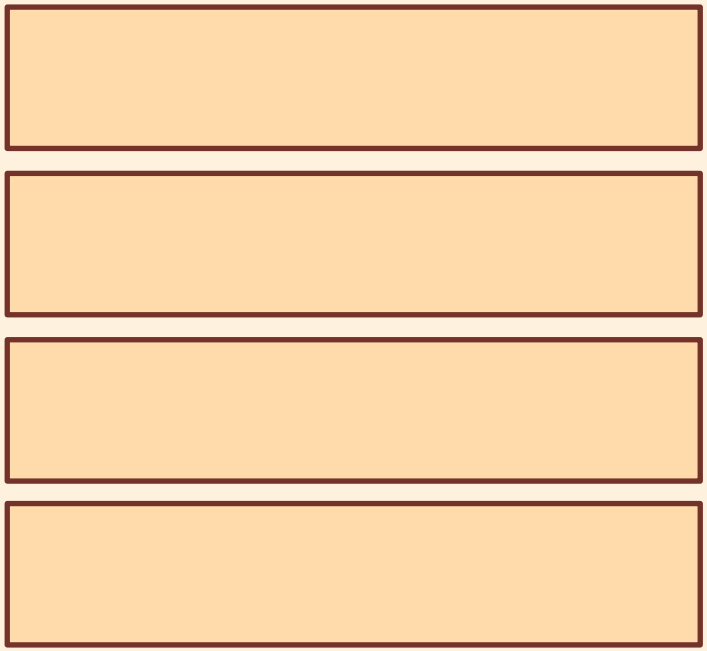
@TotherAlistair

http://alistair.cockburn.us/

Ports & Adapters

“Standard” Layered Architecture

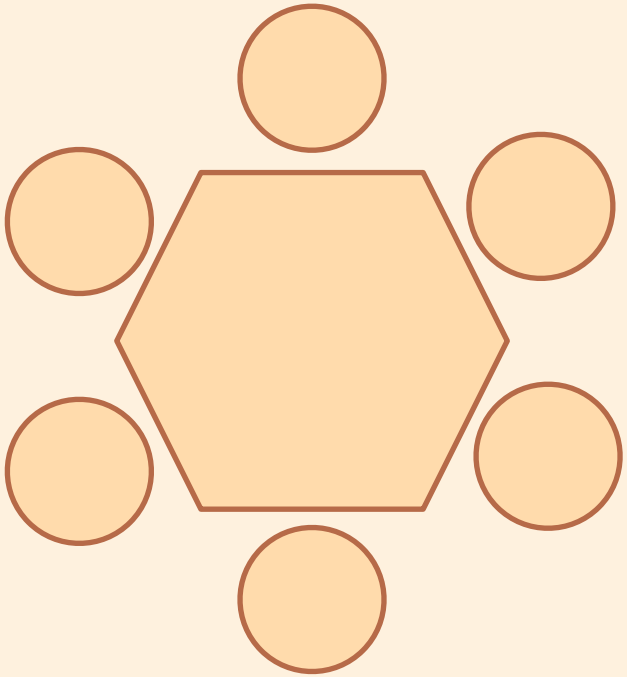
A layered model “looks like” a pile of books or building bricks



Ports & Adapters

Hexagonal Architecture

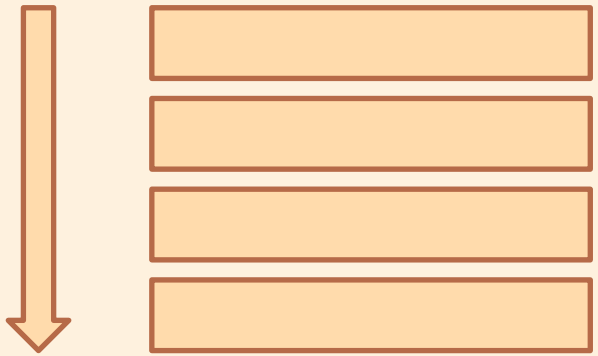
A hexagonal model “looks like” an island on a map or a table with chairs around it



Ports & Adapters

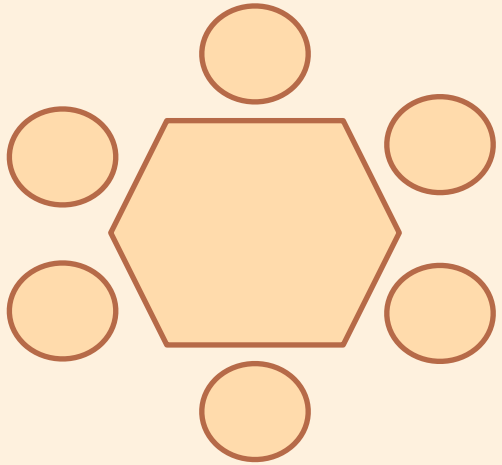
Metaphor

Effects of gravity and mass, together with related implications of downward dependency.



Things at the bottom of the pile are hard to move or change

Instinctively feel the system's components are more loosely coupled



http://silkandspinach.net/2005/11/28/gravity-and-software-adaptability/

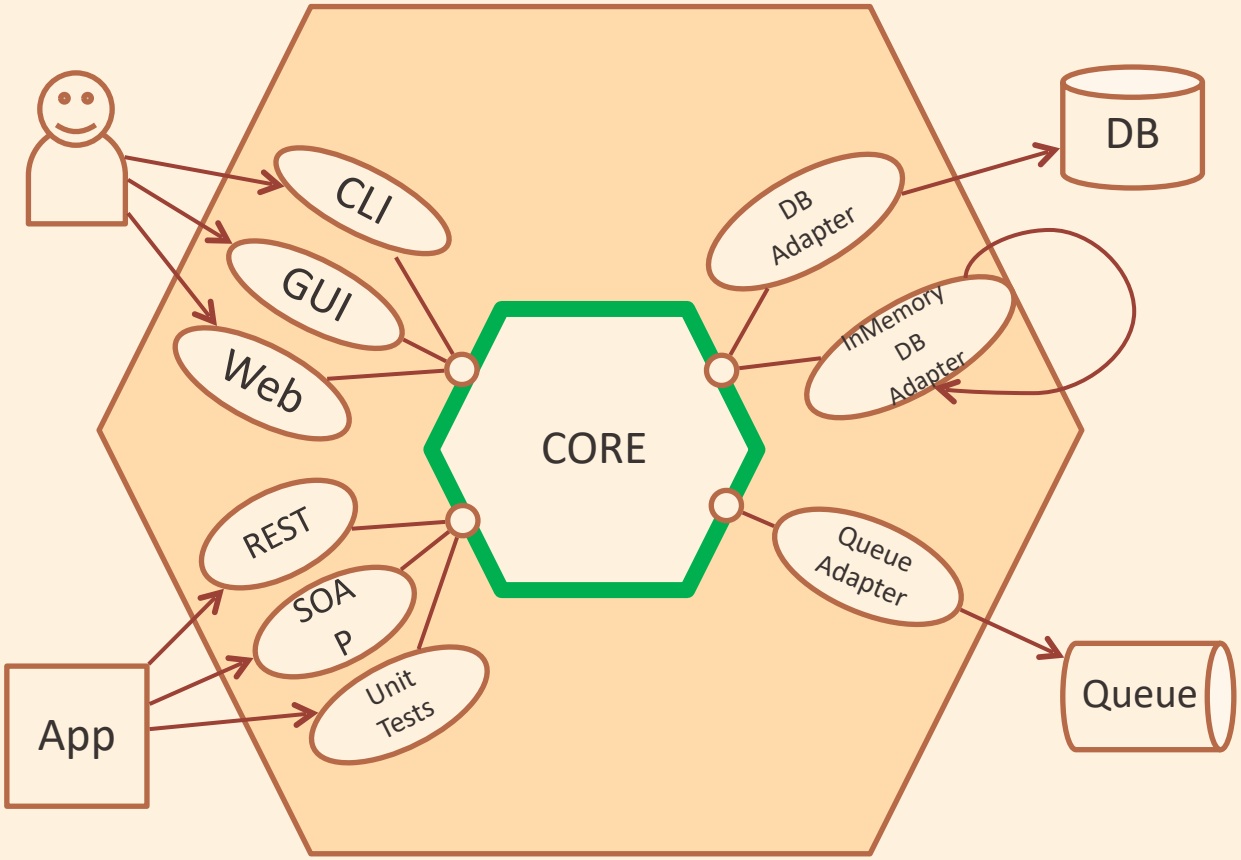
Ports & Adapters

Layers

hexagonal architecture
rejects the notion that
any of these
layers **except the domain** are
different
from one another.

Ports & Adapters

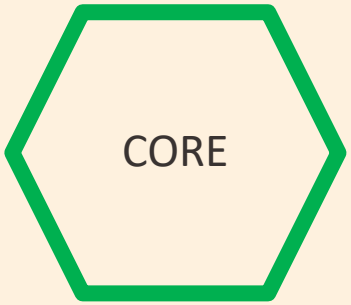
Components



Ports & Adapters

The Domain

Contains all the logic and rules of the application.

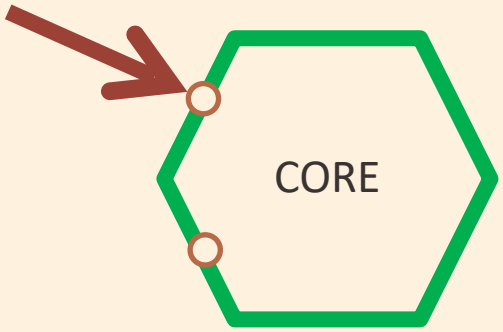


No technology concerns (HTTP contexts, DB calls) are referenced in the domain.
Allows changes in technology to be made without affecting the domain.

Ports & Adapters

Primary Ports

Are contracts, behaviour you agree to provide

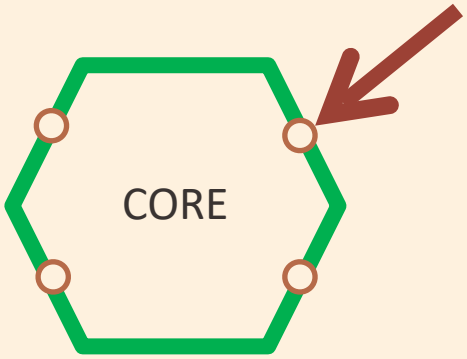


They are *called by* the primary adapters that form the user side of the application.

Ports & Adapters

Secondary Ports

Are interfaces for the secondary adapters

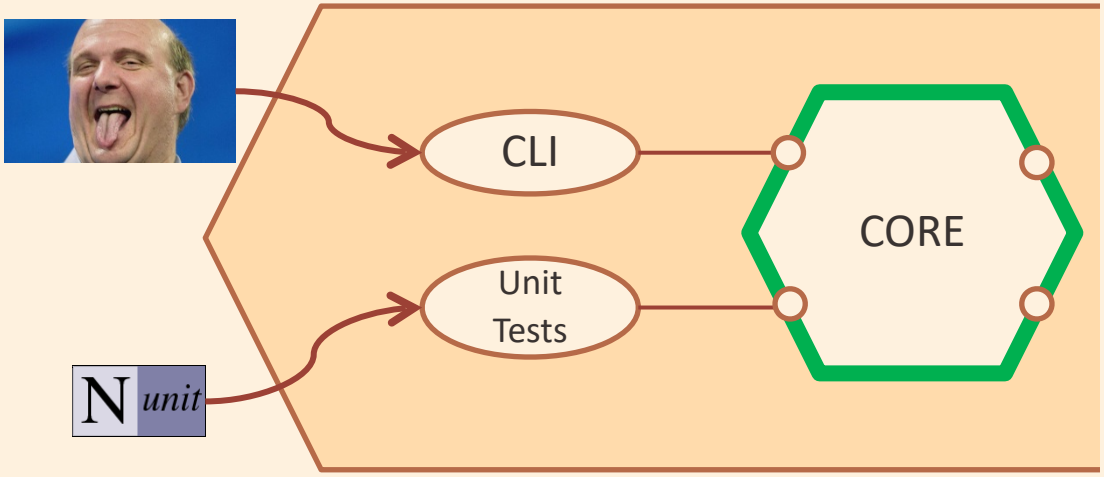


They are *called by* the core logic.

Ports & Adapters

Primary Adapters

Is a piece of code between the user and the core logic.

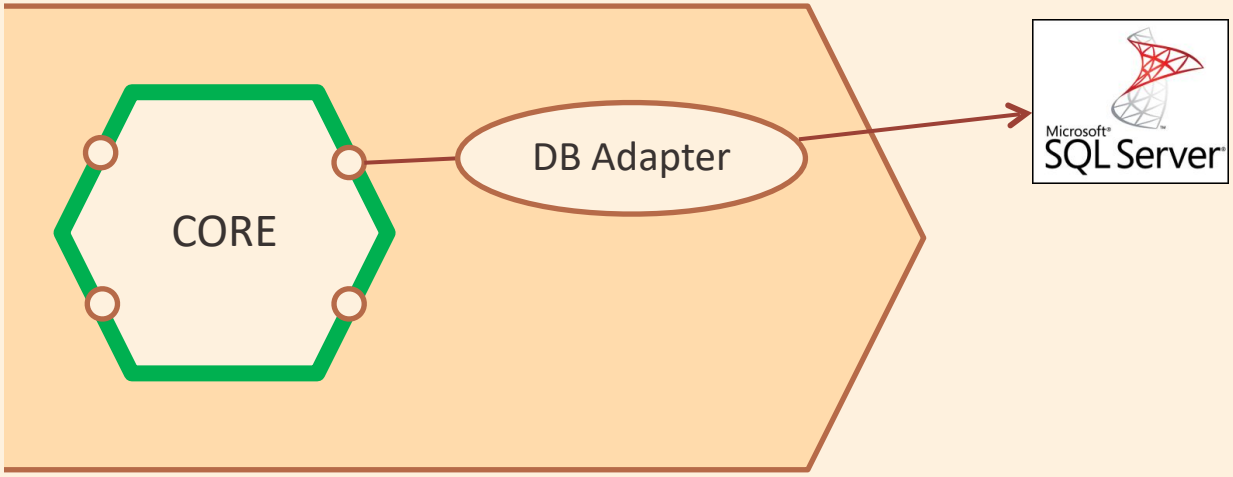


The primary adapter calls the functions of the core logic.

Ports & Adapters

Secondary Adapters

Are an implementation of the secondary port (which is an interface)



The core logic calls the functions of the secondary adapter.

Ports & Adapters

How does it work

Dependency Injection